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FIELDS FOR KIDS

June 15, 2015

Amesbury Planning Board
Amesbury Conservation Commission
Office of Community and Economic Development
62 Friend Street
Amesbury MA 01913

Dear Planning Board and Conservation Commission Members:

This letter is to provide additional information requested by the City to support Amesbury Soccer Associations (ASA)'s Site Plan/Special Permit and Notice of Intent submissions, DEP File No 002-1116.

1. ASA is submitting a draft Turf Management Plan, attached to this letter. A final plan will be submitted prior to the final construction of the fields once the final seed mixture has been selected. The Plan will be reviewed and updated on a regular basis, as outlined in the document, and submitted to the City as necessary.

2. ASA is planning to work closely with abutting property owner on Lions Mouth Road to address concerns over parking. The proposed consolidation of the fields moves the playing area further away from the abutter and closer to Cashman Elementary school. The center of the field area is 0.25 miles from Cashman and the existing gravel parking area at Woodsom Farm. As the field are equi-distant from the two possible parking areas Cashman will be a viable alternative parking location. ASA plans to promote parking at Cashman Elementary School on our website, on the leagues website and by talking with our parents and coaches. In addition, we will continue to utilize cones and signs at Woodsom Farm to indicate approved parking areas. Cashman Elementary School parking can accommodate up to 180 cars. At our peak field usage we have had to accommodate 100 cars.

3. The proposed irrigation well has been relocated, refer to revised plan C-4. The well will be a bedrock well, with yield of approximately 30 gallons per minute and is anticipated to be 25-50' feet. The well will not have an impacted on surrounding surface water in the area and is not located near the City of Amesbury's water supply, as shown in the attached map.

4. A Construction Logistics and Soil Management Plan has been prepared by our representative, Oak Consulting Group LLC, and is attached.

We look forward to addressing any questions you have on the scheduled our response at the scheduled meetings in July at which our representatives Hughes Environmental Consulting and Oak Consulting Group will be present. In the meantime if you have any questions please contact me.

Sincerely,
Margaret McCarthy
Margaret McCarthy
Secretary
Amesbury Soccer Association
978-317-8101
margaretmccarthy14@gmail.com

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Turf Management Plan

Amesbury Soccer Association | Fields For Kids Campaign | PO Box 127 | Amesbury, MA 01913

Amesbury Soccer Association
Turf Management Plan

Amesbury Soccer Association (ASA) has developed this Turf Management Plan for maintaining soccer fields at Woodsom Farm. This document shall be reviewed and updated, if necessary, on an annual basis based on the results of soil testing. The update document shall be submitted to the City of Amesbury, for review prior to implementation.

This document was developed following the best management practices outlined in Turf Management for Municipal Athletic Fields, developed by Massachusetts Department of Agricultural Resources Turf Management for Municipal Athletic Fields. It is included in Appendix A for this document.

Surface Care and Maintenance

The most important element to minimize adverse effects to the environment and enhance playing surfaces needed for the sport of soccer is to apply proper horticultural practices to establish and maintain healthy turfgrass. Choosing the appropriate cultural practices, such as proper turf for the site and use, proper fertilization, aeration, irrigation and mowing practices will reduce or eliminate the need for chemical treatment of the turf. Well-maintained healthy turf with dense root systems can suppress the growth of weeds and the potential for disease, thus reducing the need for pesticides. ASA is committed to providing the best possible quality playing field and minimizing the use of chemical treatments.

In order to maintain a healthy turfgrass system the following practices will be followed by ASA:

Conduct a complete soil analysis to determine exact nutrient needs.
Healthy turf must have healthy soil. Determine nutrient (nitrogen, phosphorous, and potassium) and pH levels. ASA will apply only nutrients that are necessary at times when they can be used most efficiently by the roots.

Use slow-release organic fertilizer.
Studies have shown that regular applications of compost based organic fertilizers have been proven to significantly suppress the growth of most common turf weeds. Nutrients released slowly into the soil maintain a more consistent level. ASA will apply less fertilizer more often to maintain a more consistent level and reduce the potential for leaching and runoff by allowing the turf to utilize the nutrients. Organic fertilizer adds organic matter to the soil that is utilized by the soil microorganisms.

Late August/ early September is considered to be a critical time for coolseason grasses. At this time the nitrogen can help the turf recover from summer stress and pest damage. Early spring applications are used to promote greenup. Often late spring applications are done to promote growth before the heat and drought stress of summer can impact the turf. It is important that the type of fertilizer used at this time contain high amounts of slow release nitrogen (WIN). Late Fall applications can be done after the last mowing (when turf has stopped growing), but just before the turf loses color. Not only does this timing enhance Winter turf color but it also can cause a Spring greenup three to four weeks earlier. Kentucky Bluegrass specifically benefits from this late season application by improved rooting the following Spring. When fertilizing it is important to remember that nutrient uptake is through the roots of the turf. The goal is to feed the soil, not the grass. Fertilizing turf will be avoided when wet because the fertilizer stays on the grass blade and can cause "fertilizer burn". Any fertilizer application will be followed with watering. This washes off the blade and forces the fertilizer material closer to the soil surface for absorption. Quickly available sources will not be applied before a heavy rainfall.

Liming

The pH (acidity) of the soil affects the availability of other nutrients. Phosphorous is most available when the soil pH is nearly neutral between 6.0 and 7.0. In highly acidic soils with pH of less than 5.0, phosphorous gets "tied up" with iron and aluminum to form complexes which are unavailable to turfgrasses. Maintaining near neutral soil pH values also favors the activity of beneficial soil microorganisms, the release of nitrate from nitrogen fertilizers and more vigorous growth of most turfgrasses. In highly acidic soils, toxic concentrations of aluminum, iron and manganese may develop and cause impaired rooting (roots will appear short, brown and spindly) a decrease in overall turf vigor, shoot growth, drought tolerance and recuperative potential. The optimum pH range for cool-season turfgrass is 6.0 to 6.5. Since most soils in New England are acidic, the application of lime will adjust the soil pH or acidity to the correct level. Lime is a calcium-based compound (ground limestone). Some turf grass diseases tend to increase with pH extremes. Two ways to ensure that correct amounts of lime are applied to the athletic field are to: ¡ conduct a soil test prior to the liming application and use the amounts recommended by the soil lab, ¡ ensure that the spreader is properly calibrated for the specific application rate. The best time to apply lime is in the late Summer or early Fall. Late Fall applications will be avoided because they are known to increase some turf diseases such as pink snow mold.

Mowing.

There is a direct relationship between mowing height and the depth of the root system. Removal of more than 40% of the height of the blade in a single mowing stops root growth. The larger percentage of the blade is removed, the longer the root growth is halted, allowing the turfgrass to be more susceptible to disease and insect problems and the encroachment of weeds. Mow more often, cutting less. Mowing heights will be higher in warmer months. Higher blade heights, two to three inches, shade the soil, conserve moisture and inhibit the development of weeds.

***Leave clippings on the ground*.**
Turf clippings are 85-90% water. As clippings decompose, nitrogen and other nutrients are returned to the soil, contributing to the organic matter. Shorter grass clippings will decompose faster. Leaving grass clippings can reduce the need for fertilizer by 1-3 applications per year. If mowed regularly at the proper height, there will be no build-up of thatch.

Aeration
Compacted soil creates conditions for limited root development and increases the turf's susceptibility to certain diseases. Athletic fields can become extremely compacted. To prevent this, fields will be aerated several times a year. This increases the ability of water to penetrate the soil, provides oxygen to microorganisms, and pushes the thatch layer into the soil, increasing the rate of decomposition and the organic matter in the soil. After aeration, a compost based organic amendment will be applied to further increase the amount of organic matter and provide nutrients to the soil. Composted organic amendments have been found to be among the most consistently effective in reducing the severity of turfgrass diseases, whether applied as a topdressing, or root zone amendment.

***Control thatch layer*.**
Thatch is the accumulation of undecomposed roots and stems at the soil surface. If allowed to become too thick, this can prevent water and nutrients from entering the soil. Aeration pushes thatch into the soil, allowing for increased decomposition and increasing organic matter to the soil. Frequent mowing prevents build-up of thatch to unacceptable levels. The use of organic fertilizers also promotes thatch decomposition.

Irrigation
Proper irrigation and water management practices are crucial to healthy turf and will reduce the potential for leaching and runoff. Soil moisture levels will be tested and water will be applied only to replace water lost through evapotranspiration. Irrigation applications need to be adjusted according to weather and soil conditions. Soil moisture will be monitored and used to determine the need for irrigation.

In general turf grasses need an inch of water per week during the growing season. More water will be required in the hot mid-summer months. The irrigation system shall be utilized to ensure when rainfall is not enough that enough water is provided to the field. The general rule of thumb is to irrigate heavily, but slowly once a week.

Watering will take place early in the morning, for better soil penetration and absorption by reducing excessive evaporation loss.

Field Rotation

Field Rotation reduces compaction due to overuse and wear. Different fields will be used for practice by alternating team schedules. The field layouts have been designed to allow

for shifting the entire playing surface, which will reduce repetitive wear on the turf in places such as goal areas. An athletic field with a dense coverage of turf is an effective tool to reduce erosion and runoff.

Integrated Pest Management

The fields will be checked on a regular basis for pests. This periodic monitoring will help to identify a potential problem in the early stages thereby avoiding crisis management methods at later stages. Crisis management can be costly, both financially and environmentally because it may require a more toxic material to be used. However, early detection often allows the turf manager to use alternative approaches and to use localized spot treatments which reduces pesticide use and costs. A written record of observations will be kept.

The simple presence of a pest does not mean a treatment has to be done. There may be a certain level of damage that is tolerable and not worth using a pesticide to control. The level at which pests will be controlled is referred to as a threshold, or the level of pest tolerance. To determine what level requires a response it is necessary to know what is the expected quality of the turf. The higher the desired turf quality, the quicker a turf manager will need to respond and this may mean using a pesticide.

If pests are noticed during routine checks a professional will be consulted for recommendations on next steps. ASA will look to leverage mechanical or biological controls for pest control to the greatest extent possible. Chemical controls will be a last resort and will be applied by a professional.

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TURF MANAGEMENT SCHEDULE

Early Spring (mid-March/April)	BMP(s) and Details	Sensitive Resources
General	Rake away areas of dead grass Reseed thin and bare areas	
Water	Check Irrigation equipment and zones	
Nutrient		
Pest & Pesticides	Scouting / Monitoring	Allows early detection of pest
Other	Update management practices	

Spring (May)	BMP(s) and Details	Sensitive Resources
General	Mowing High Aeration of compacted areas	Water Conservation Weed control Player safety (fall & injury)
Water	Check Irrigation equipment and zones Water as necessary	Water Conservation (ensures only field, not any paved areas receive water) Ensures even distribution of water and better turf growth and resulting even playing surface.
Nutrient	Use Fertilizer with high WIN % Fertilize only field areas Soil Test	Non-players, or visitors safe from chemical sensitivity. Ensures proper type & amt of material is applied & avoids unnecessary reapplication or corrective action.
Pest & Pesticides	Scouting / Monitoring	Allows early detection of pest
Other	Keep records up to date	

FIELDS FOR KIDS

Summer(June/July/August)	BMP(s) and Details	Sensitive Resources
General	Mowing High (avoid semi-dormant and dormant turf)	Water Conservation Weed control Player safety (fall & injury)
Water	Water deeply and infrequently	Water Conservation (ensures only field, not any paved areas receive water) Ensures even distribution of water and better turf growth and resulting even playing surface.
Nutrient		
Pest & Pesticides	Scouting / Monitoring	Allows early detection of pest
Other	Keep records up to date	

Fall (September/October)	BMP(s) and Details	Sensitive Resources
General	Mowing High (avoid semi-dormant and dormant turf) Renovate and reseed (if necessary)	Water Conservation Weed control Player safety (fall & injury)
Water	Water deeply and infrequently	Water Conservation (ensures only field, not any paved areas receive water) Ensures even distribution of water and better turf growth and resulting even playing surface.
Nutrient	Fertilize in early Fall Test pH & adjust accordingly	
Pest & Pesticides	Scouting / Monitoring	Allows early detection of pest
Other	Keep records up to date	

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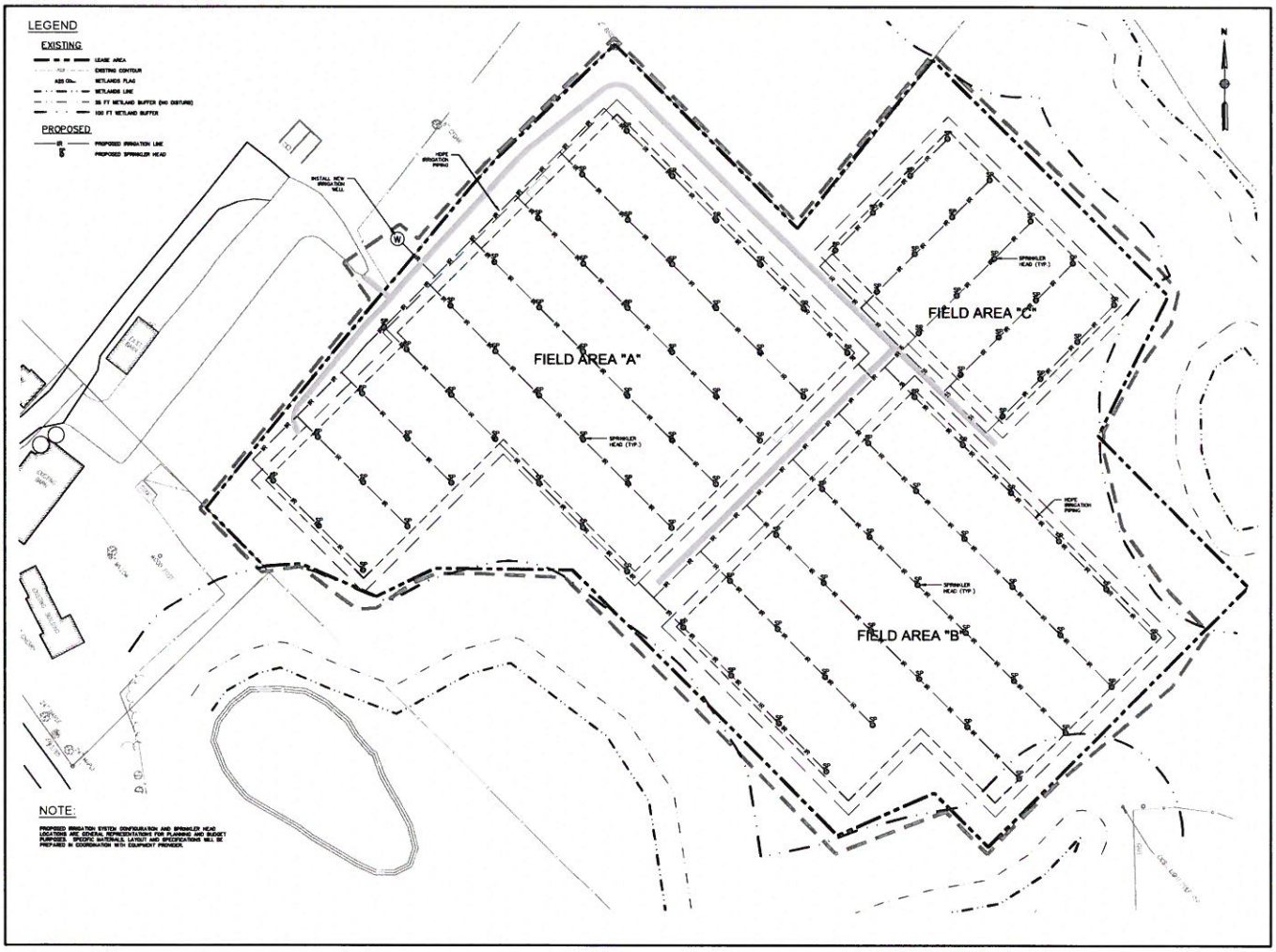
Sheet C-4 Irrigation Plan



WOODSOM FARM
SOCCER FIELDS

Prepared for:
AMESBURY SOCCER ASSOC.
P.O. BOX 127
AMESBURY, MASSACHUSETTS

OCG
Oak Consulting Group
P.O. Box 1185
Newburyport, MA 01950
Ph: 978.518.5182

IRRIGATION PLAN

No.	Revision/Issue	Date
3	Relocate Irrigation Well	6/2/15
2	On-Site Irrigation Well	3/9/15
1	Revised Per Comment	1/13/15

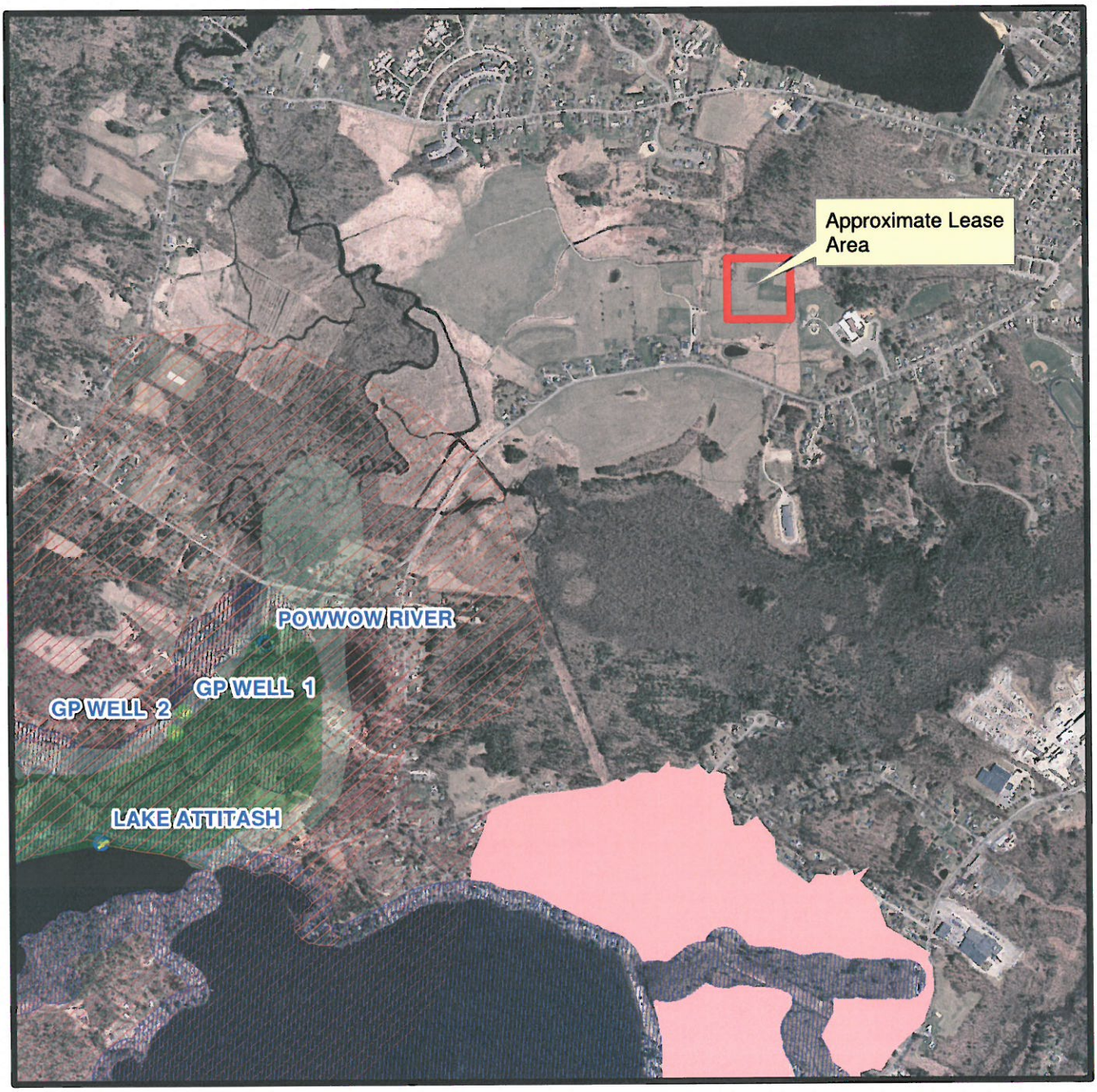
Design by: PFA	Checked by: SPM
Drawn by: PFA	
Project: 14028	Date: JANUARY 5, 2015

Sheet:
C-4

FIELDS FOR KIDS

Aquifer and Protection Areas 2013 Orthophoto

219 Lions Mouth Road #RR
Aquifers and Protection Areas
2013 Orthophoto



Legend

- High Yield Aquifer
- Medium Yield Aquifer
- ZONE A Surface Water Supply Protection Area
- ZONE B Surface Water Supply Protection Area
- ZONE C Surface Water Supply Protection Area
- Zone 2 Wellhead Protection

0 800 1,600 3,200 Feet

Prepared by Hughes Environmental Consulting, Data Source MassGIS

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Construction Logistics and Soil Management

Amesbury Soccer Association | Fields For Kids Campaign | PO Box 127 | Amesbury, MA 01913

CONSTRUCTION LOGISTICS AND SOIL MANAGEMENT PLAN

WOODSOM FARM SOCCER FIELDS
LION'S MOUTH ROAD
AMESBURY, MASSACHUSETTS

Prepared for:

Amesbury Soccer Association
P.O. Box 127
Amesbury, Massachusetts

Prepared by:

Oak Consulting Group, LLC
P.O. Box 1123
Newburyport, Massachusetts 01950
978-312-3120

Project 14028
June 2, 2015

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- 2.3 Construction Staging 5

APPENDICES:

Appendix A: Site Logistics Plan
Appendix B: Earthwork Calculations

1.0 INTRODUCTION

On behalf of the Amesbury Soccer Association, (ASA), Oak Consulting Group, LLC (OCG) has prepared the following Construction Logistics and Soil Management Plan for constructing the proposed soccer fields at the Woodsom Farm property located on Lion's Mouth Road in Amesbury, Massachusetts.

1.1 Current Conditions

The project site (Lease Area) consists of an approximately 10.1-acre portion of the Woodsom Farm property under a lease agreement between the ASA and the City of Amesbury for construction of the proposed soccer fields. The Lease Area is currently occupied by maintained agricultural fields in passive recreational use except that approximately 2.2 acres of the site have been improved and are maintained as athletic playing fields.

There are freshwater bordering vegetated wetlands (BVW) located to the northeast and southwest of the Lease Area. These resource areas are all located outside the Lease Area; however the associated 100-foot buffer zones extend into the eastern end of the project site. The BVW resource area to the southwest contains a small (approximately 0.5 acres) pond. Additionally, approximately 3.6 acres in the northwest portion of the Lease Area is located within the City of Amesbury Zone C Water Resources Protection District.

Site topography provides gentle slopes in various directions with localized high and low spots. All stormwater flows overland across the vegetated surfaces to the adjacent BVW areas. There are no impervious surfaces or stormwater Best Management Practices (BMPs) within the Lease Area or surrounding land receiving runoff from the project site.

1.2 Site Geology and Hydrogeology

Test pits excavated within the Lease Area indicate that site soils are comprised of fine sandy loam topsoil and fine sandy loams subsoils with many bits of weathered rock fragments. The soils are well drained in most locations except that rock fragments were observed to be tightly-packed in some locations which may restrict percolation rates. Indicators of Estimated Seasonal High Ground Water (ESHGW) were encountered in certain test pits excavated at lower elevations in the southern and eastern portions of the Lease Area. Depths to ESHGW in test pits within the Lease Area varied between 33 to 50 inches. For most of the test pits excavated within the Lease Area, evidence of ESHGW was not reported above the typical excavation depth of 48 inches. Ledge was encountered approximately 12 inches below ground surface at a knoll/high point in the northern portion of the site (Test Pit 6B) and at 32 and 37 inches below ground surface at nearby Test Pits 7E and 5E, respectively. The ledge encountered was described as loose and easily fractured shale.

According to the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Soil Map for Essex County, soils within the Lease Area are classified as Charlton fine sandy loam. Based on the soil information provided by the test pits and NRCS, site soils are identified as hydrologic soil group A.

1.3 Proposed Improvements

The Project consists of constructing soccer fields within the lease area. Additional improvements include an irrigation system and stone dust paths to provide access to the fields. No

impervious surfaces, parking areas, buildings, or other site improvements are proposed beyond the fields themselves and supporting infrastructure.

The general layout of the fields are sized in accordance with U.S. Youth Soccer recommendations for various age groups as shown on the project site plans. However, it will be necessary to "rest" portions of the fields during certain seasons so the layout has been designed to accommodate alternative configurations which will likely include rotating the field orientation by 90 degrees. As such, the design proposes three general field areas designated as Areas A, B and C on the project plans.

As shown on the plans, field construction will include installation of underdrains to promote proper drainage of the playing surfaces. An irrigation system is also proposed which will connect to a new water supply well to be installed at the site. The proper field drainage and irrigation system will help increase the durability of the fields and ease long term maintenance burdens.

2.0 CONSTRUCTION SEQUENCING AND LOGISTICS

2.1 Sequence of Operations

The fields will be constructed in phases as described below. The intent is to begin work at the lowest and farthest end of the project and proceed back toward the parking lot.

Phase 1:	Field Area "B", Stormwater Basin 1C, Irrigation well
Phase 2:	Field Area "C"
Phase 3:	Field Area "A" (north)
Phase 4:	Field Area "A" (south)

Proposed phase areas are shown on the Site Logistics Plan enclosed as Appendix A. For each phase of the work the general sequence of construction activities will be as follows:

- Install erosion control measures: All sedimentation barriers shown on the project plans as required to protect nearby wetlands resource areas will be installed prior to the start of work. Prior to the start of each phase, sedimentation barriers will be inspected and maintained as required to confirm that they are adequately protective for the proposed work. In addition, supplemental measures may be installed during Phases 2, 3 or 4 to protect earlier phases from sedimentation impacts.

- Strip top soil: Based on site soil data, existing topsoil will be stripped to a depth of approximately 12 inches below finish grade. Approximately 30% of the stripped topsoil will be stockpiled on site for reuse. The remaining 70% will be exported off site.

- Construct fields to subgrade: The site will be graded to establish the required subgrade beneath the select materials which comprise the fields. Additional fill will be required in certain areas of the site.

- Install base courses: Select gravel and root mix materials will be imported and installed according to the plans. Drainage and irrigation piping will also be installed at this time.

- Install top soil and seed: Stockpiled topsoil will be applied and seeded with athletic field mix. Stone dust paths will also be installed at this time.

- Maintain until turf is established: Seed will be irrigated and maintained until turf is established. This process will include repairing areas of erosion if necessary.

Phases may be overlapping. It is not anticipated that turf will be fully established on Phases 1 or 2 before starting work on a subsequent phases. However, both Phases 1 and 2 will be complete up to installing the topsoil and seed prior to beginning work on Phases 3 and 4. All erosion controls shall remain in place and maintained until the contributing gradient area is stabilized. The irrigation well is proposed to be installed during Phase 1 to provide a water supply during construction.

2.2 Soil Management

As indicated in the earthwork calculations enclosed as Appendix B, the project will require removing an estimated 15,400 cubic yards (cy) of topsoil. Of that amount, an estimated total of 4,400 cy

will be stockpiled on site for reuse. The remaining topsoil will be removed from the site. Estimated soil stockpile volumes for each of the construction phases is summarized below.

	Approximate Area (sf)	Topsoil Stockpile Volume (cy)
Phase 1	153,700	1,600
Phase 2	64,380	700
Phase 3	107,000	1,100
Phase 4	90,200	1,000
Total	415,280	4,400

As shown on the Construction Logistics Plan (Appendix A), soil stockpiles for Phases 1 and 2 will be located within the lease area on the Phase 3 field area. Conservatively, we estimate that the largest amount that would potentially be stockpiled at this location is 2,300 cy, the sum of the estimated topsoil volumes for both Phases 1 and 2. The proposed stockpile could occupy a base area of as much as 18,000 square feet.

For Phase 3, a stockpile of up to 1,100 cy is anticipated. A stockpile location occupying approximately 9,000 is shown on the Construction Logistics Plan within the lease area on the Phase 4 field area.

For Phase 4, a stockpile of up to 1,000 cy is anticipated. A stockpile location occupying approximately 8,000 is shown on the Construction Logistics Plan in the area between the Lease Area and the gravel parking area.

All proposed soil stockpiles are located outside of wetland resource area buffer zones. Possible sediment migration resulting from stockpile erosion is expected to be minimal since the stockpiles will be located in grassed areas. However, sedimentation barriers will be installed and maintained around the base of the stockpiles if the need arises.

Select materials being imported to the site will be delivered in coordination with the construction schedule. Trucks will pile select materials at various locations within the active work areas in the general proximity of the final placement location. Little if any stockpiling of imported select materials is anticipated.

2.3 Construction Staging

Construction staging activities may include the following:

- Field office;
- Materials laydown area (drainage piping, irrigation equipment, etc.);
- Construction equipment parking; and
- Parking for worker vehicles.

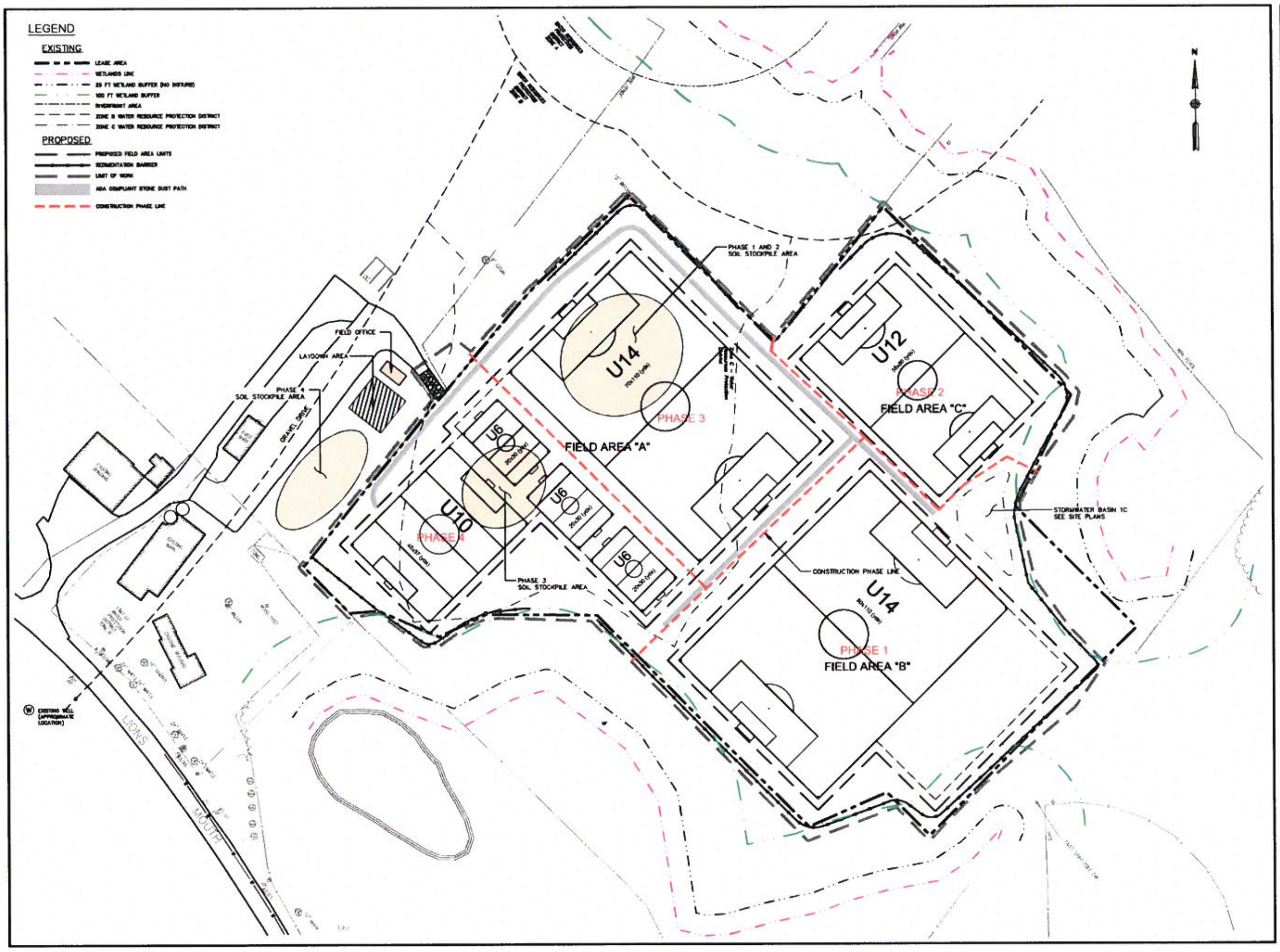
The field office and laydown areas will be located in the grassed area between the existing gravel parking and the Lease Area as shown on the Construction Logistics Plan. Construction equipment such as excavators and graders may be parked overnight either on gravel parking area or within the work area.

Workers will park their personal vehicles either in the gravel parking lot or adjacent to the field office and laydown area.

APPENDIX A

Site Logistics Plan

Construction Logistics and Soil Management Plan
Woodsom Farm Soccer Fields
Lions Mouth Road
Amesbury, Massachusetts



WOODSOM FARM
SOCCER FIELDS

Prepared for:

AMESBURY SOCCER ASSOC.
P.O. BOX 127
AMESBURY, MASSACHUSETTS

0 25 50 100
SCALE in FEET
1"=50'

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P.O. Box 1165
Newburyport, MA 01950
Ph. 508.819.9035

CONSTRUCTION
LOGISTICS PLAN

No.	Revision/Issue	Date

Design by: PFA	Checked by: SPM
Drawn by: PFA	
Project: 14028	Date: MAY 29, 2015
Sheet: CL-1	

APPENDIX B

Earthwork Calculations

Construction Logistics and Soil Management Plan
Woodsom Farm Soccer Fields
Lions Mouth Road
Amesbury, Massachusetts

OCG
Oak Consulting Group

P.O. Box 1123
Newburyport, MA 01950
508 284-4800

Memorandum

To: Margaret McCarthy
From: Paul Avery
cc: Tom Hughes
Ed Campbell

Date: February 6, 2015

RE: Earthwork Summary
Woodsom Farm
Lions Mouth Road

As requested, OCG has prepared the following summary of estimated earthwork volume for the Woodsom Farm soccer field project based on the most recent plans dated January 13, 2015.

In summary, we anticipate the project will require the following:

Total Cut	8,200 cy
Total Fill	25,600 cy
Net Fill Required	17,400 cy
Topsoil Stripped	15,400 cy
Topsoil Reused	4,400 cy
Topsoil Exported	11,000 cy
Adjusted Fill Required (after topsoil export)	28,400 cy
Imported Common Fill	15,000 cy
Imported Select Field Fill Materials	
Root Mix	6,700 cy
Gravel Base	6,700 cy
Total Imported Fill	28,400 cy

This summary is based on the assumptions provided below. These assumptions should be reviewed with site contractor and may be subject to change prior to construction.

1. Based on the 1998 Soils Analysis provided, approximately 12" of topsoil will need to be stripped from the entire work area and stockpiled.

2. Two inches of stockpiled topsoil will be reused for seeding the athletic field playing surfaces as shown on the Playing Field Cross Section detail on Sheet C-6.

3. Six inches of stockpiled topsoil will be reused on other disturbed areas of the site within the limit of work but beyond the playing field buffer lines.

4. Select field materials quantities are based on the field areas and their buffers receiving 8" of root mix and 8" of gravel as called for on the Playing Field Cross Section detail. Quantities are subject to change with final field construction details.

The total volume of stripped topsoil is estimated to be approximately 15,400 cy of which approximately 4,400 is anticipated to be reused on site. The remaining 11,000 cy to be exported is expected to be quality organic material with potential resale value. We recommend this potential be further explored with the site contractor.

Fill requirements may be reduced by lowering proposed field grades. By rough estimate, a balanced site would require lowering the fields on the order of one foot, on average. Regrading opportunities may be constrained by site factors such as shallow depths to ledge in certain locations or drainage considerations in areas near wetlands.